



**SUSTAINABLE
DEVELOPMENT
REPORT 2012**

 **Česká
rafinérská**

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INTRODUCTORY WORD

Today, the „corporate social responsibility“ wording is used more and more and is gaining importance. However, for our company, Česká rafinérská, and lots of its activities, the notion of the social responsibility is rather narrow. Over the years when we have been greatly accentuating ecology, coordination with surrounding communities, occupational safety, quality of our products, and many other areas important for both our business and all other involved parties in the surroundings, we have adopted „sustainability“ as a broader and more relevant term. In virtue of the generally accepted definition, sustainable development refers to a mode of human development in which resource use aims to meet human needs while ensuring the sustainability

of natural systems and the environment. Major objectives of sustainable development include sustaining the environment, so that these needs can be met not only in the present, but also for generations to come.

Our goal is to continue paying as much attention as possible to both our business development and the protection of the environment, our employees' health and personal development and the support to local communities. Publishing of this „Report on Sustainability“ represents a very important part of our cooperation with our surroundings. In this report, you can find a lot of information to provide you with a comprehensive image on our company's business and its sustainable development.



COMPANY INTRODUCTION



Business name:	ČESKÁ RAFINÉRSKÁ, a.s.
Registered office:	Záluží 2, Litvínov 7, Post Code 436 01
IČ (Company identification number):	62741772 Incorporated in the Register of Companies maintained by the Regional Court in Ústí nad Labem, Section B, File No. 696
Registered Capital:	CZK 9,348,240,000
Issued securities:	934,824 ordinary registered shares, total issued CZK 9,348,240,000

ČESKÁ RAFINÉRSKÁ, a.s. (hereinafter referred to as „Česká rafinérská“) is a production company engaged in oil processing in its refineries at Litvínov and Kralupy nad Vltavou. The main list of its products includes various kinds of motor petrol, motor oil, aviation fuel, heating oil, liquefied petrol gas (LPG), asphalts, raw materials for petrochemical and chemical production, and for the production of lubrication oil and substances for other industrial uses.

Since 2003, Česká rafinérská has been a processing refinery, as it processes oil supplied by its owners, i.e. by domestic business companies. These sell products in both the home and foreign markets in proportions corresponding to their ownership share.

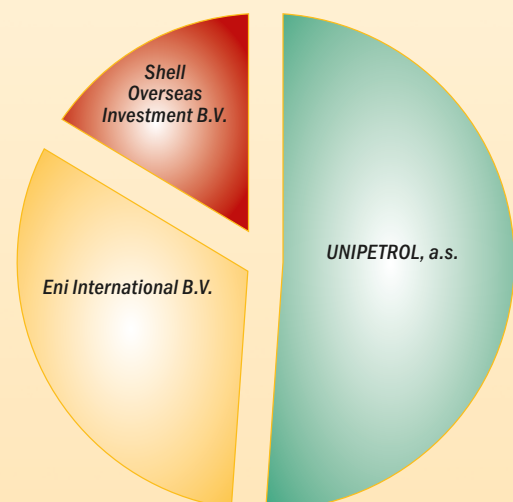
2012 was the second year of substantial organisational changes aimed primarily at enhancing the company's effectiveness and overall performance. The company was submitted to a number of audits whose outcome resulted in programmes and investment proposals aimed at enhancing the company's market competitiveness. Special attention was paid to issues related to energy use efficiency, working efficiency, and the exploitation and reliability of refining facilities.

The programmes focused on the company's employees' health care, occupational safety and protection of the workplace and the environment were further developed in accordance with the plan. The company continued in fulfilling its objective to be a good neighbour and, within the social responsible company concept, it also continued in developing relations with neighbouring towns and communities in the Most-Litvínov region and the town of Kralupy nad Vltavou and its vicinity.

The volume of the processed oil in millions of tonnes	7.15
The number of employees as of 31 December 2012	629

SHAREHOLDERS

UNIPETROL, a.s.	51.220 %
Eni International B.V.	32.445 %
Shell Overseas Investment B.V.	16.335 %



INTEGRATED MANAGEMENT SYSTEM



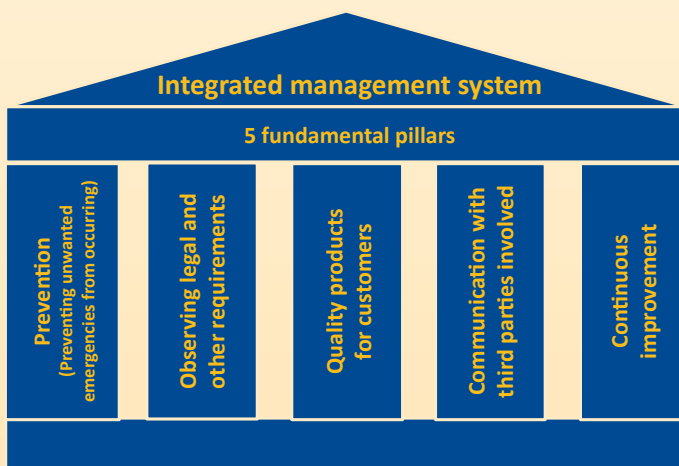
Česká rafinérská has established an **integrated management system** and is very strict about its delivery. This integrated management system combines the following interconnected management systems into a single functionally logical unit:

- Occupational safety and health protection management system;
- Quality assurance management system;
- Environment protection management system.

The above-listed management systems are certified in our company in accordance with the ISO 9001, 14001, and OHSAS 18001 international standards.



The Česká rafinérská integrated management system is based on five fundamental pillars:



Moreover, the integrated management system also includes as its integral part the following areas:

- Property protection
- and, since 2012, serious emergencies prevention.

In 2012, the company General Meeting adopted the “ČESKÁ RAFINÉRSKÁ, a.s. Integrated Management System Policy” updated document to also newly cover the above-mentioned serious emergencies prevention.

Česká rafinérská prefers the proactive approach to monitoring and managing negative impacts of its activities on customers, personal safety and health, serious emergencies prevention, and the environment and property. The process of identification and evaluation of risks helps to implement the above-mentioned, including specification of measures to eliminate or minimise them and to strengthen the control mechanisms, by which the risks are managed. Also important is the process set forth for reporting, recording, and investigating reasons of extraordinary events occurrence, including near-miss and risk situation reporting. In 2012, Česká rafinérská continued in implementing the process of procedural safety, which plays an important role in preventing occurrence of undesired extraordinary events, being an important part of the prevention pillar.

The integrated management system of Česká rafinérská especially deals with everybody's responsibility and with keeping the set out rules so that a “zero accident” status is achieved.

Česká rafinérská committed itself to continuing its activities to meet the goal of the integrated management system, i.e. to ensuring all requirements of customers are met in the highest possible quality and within the required time with optimum utilisation of all resources, while respecting all the requirements concerning quality, safety and health, serious emergencies prevention, and the environment and property of the company.

SAFETY WORK AND HEALTH PROTECTION

Safety work and health protection is an area to which our company is paying enormous attention, as is also implied by its business nature. It is focusing on observing and ever enhancing safety standards in all the facilities not only operated by the company's staff, but also by contractors. An important role is also played by the so-called "safety observations" whose number doubled in 2012 as compared to the previous year. As a real result of this continual focus area, the trend in occupational safety and health protection is improving and the number of unwanted emergencies is dropping. In 2012, satisfactory results were achieved in the occupational safety and health protection sphere. Last year, the total number of 203 extraordinary events has been recorded falling into the following categories:

- 6 accidents (2× LTI , 1× RWC , 3× FAC)
- 6 fire emergencies
- 6 near misses
- 47 risk situations
- 10 motor vehicle accidents (6 at-fault / 4 not at-fault)
- 128 others

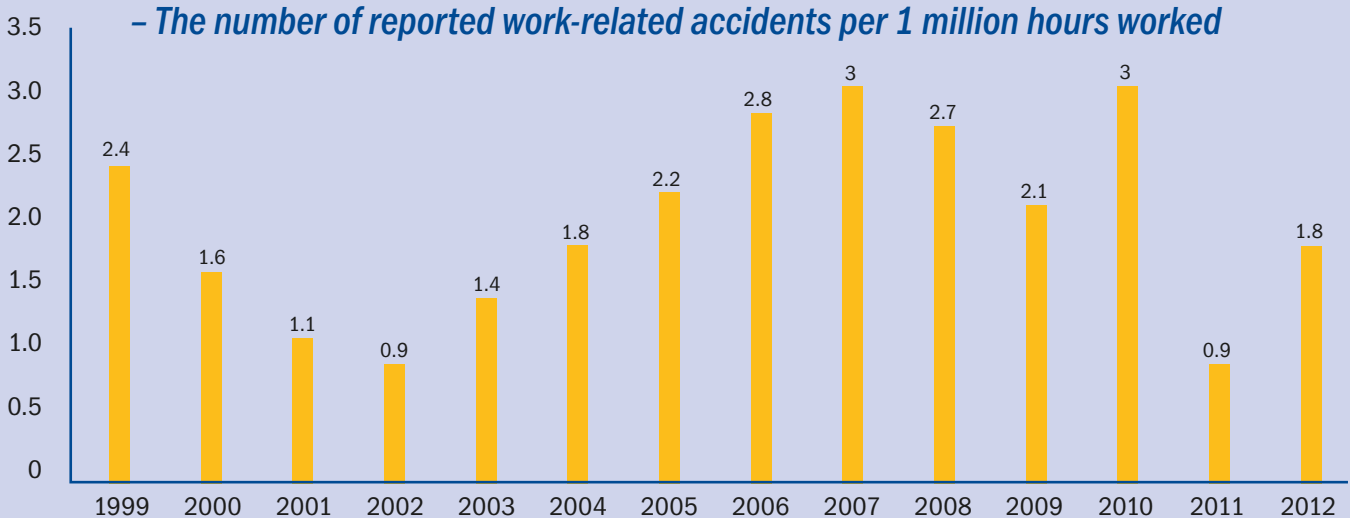
Intoxication of a contractor's employee with hydrogen sulphide (H₂S) was the most serious extraordinary event in the above list. Thanks to the prompt response from other employees, the afflicted person was given immediate first aid. Right after the extraordinary event and then after its investigation, relevant measures were taken to prevent something similar from occurring in the future. The completion of the railway filling ramp redevelopment in Kralupy nad Vltavou and several well-managed planned tourarounds of a minor extent in both refineries during the whole year may be considered a significant achievement in the occupational safety and health protection sphere. All these actions were achieved with no serious extraordinary events due to both our company's staff and the answerable approach of our contractors who accepted and observed our occupational safety and health protection standards.

¹ LTI Lost Time Injury

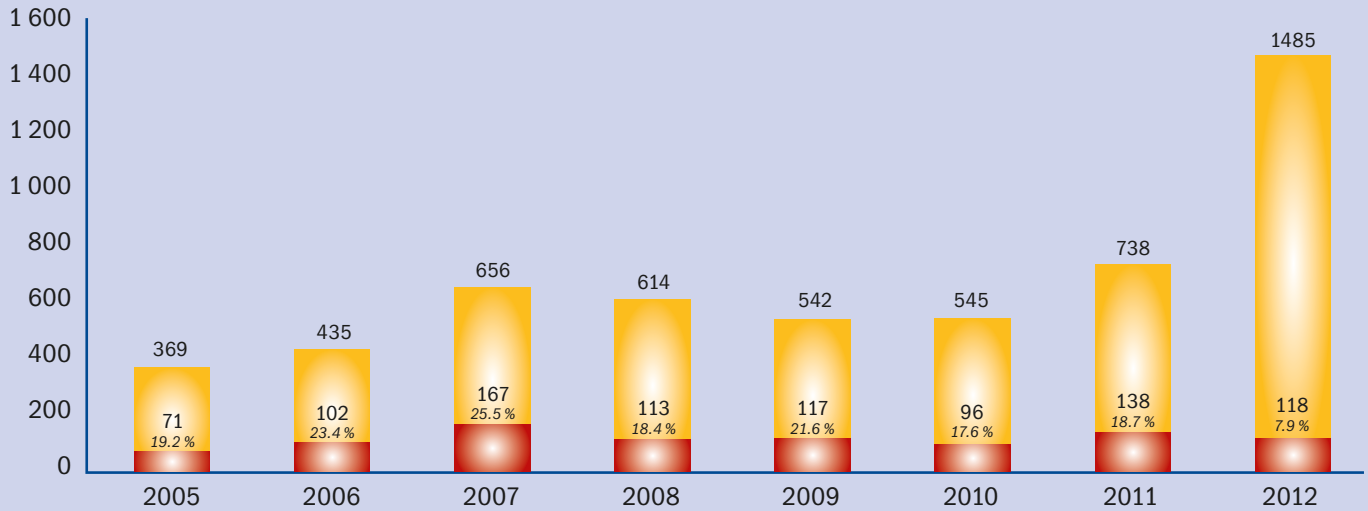
² RWC Restricted Work Case

³ FAC First Aid Case00

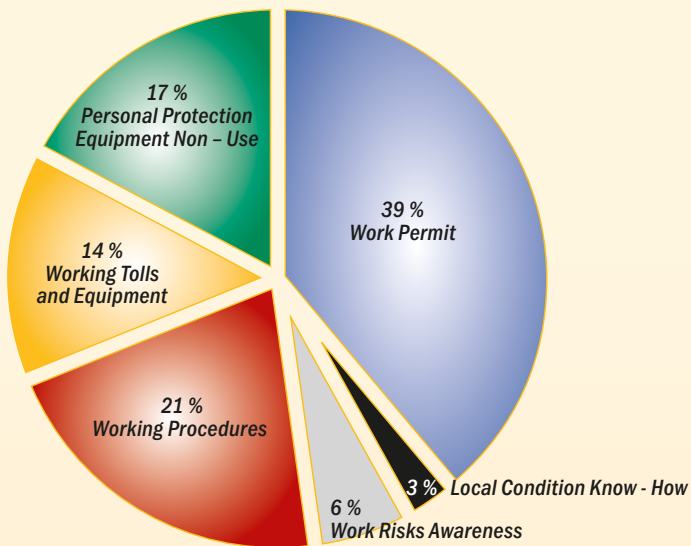
The Total Recordable Injury Rate (TRIR) indicator
– The number of reported work-related accidents per 1 million hours worked



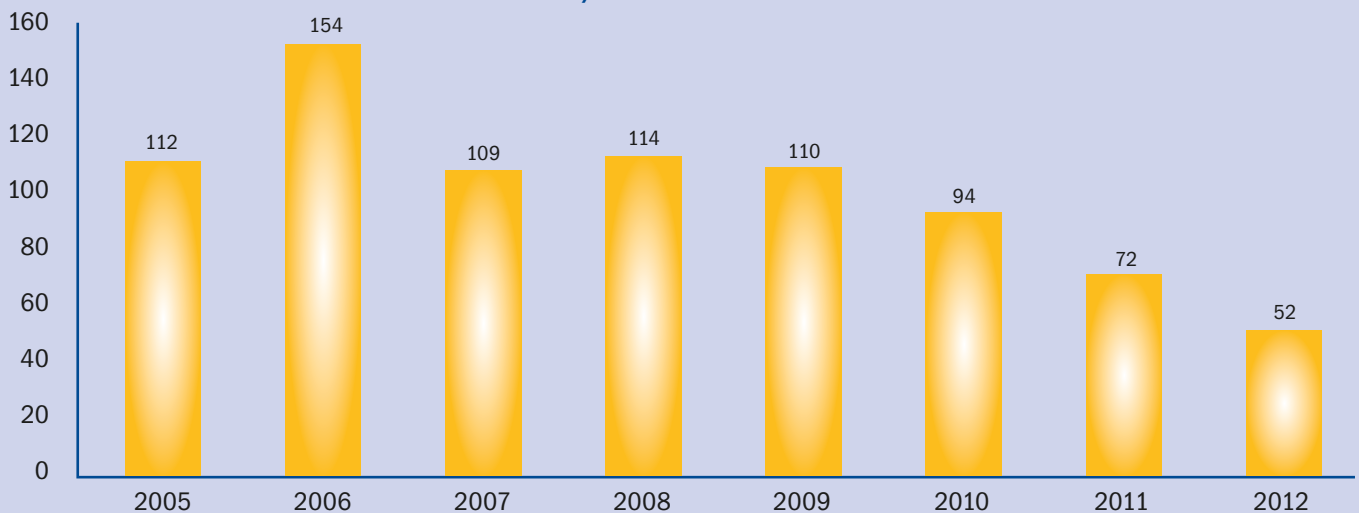
Accomplished safety observations number



Risk conduct cases found in 2012 safety observations



Near miss / risk situations number



FIRE PROTECTION

The aim of the fire protection in the company is to create continuously conditions for safe operation, protection of employees, property and the environment. The fire protection management is provided centrally; the current situation in this field is evaluated regularly. The efforts in the fire protection sphere concentrate on prevention with accentuating the minimisation of business-related risks occurrence. In our company, the progressive duty in the fire protection sphere resulted in the reliability and operability of fire safety devices and the permanent care for material items and fire protection devices in the form of regular inspections. We strictly follow legislative requirements and check their observance regularly. Also the state fire supervision performs annual inspections on observing duties set forth by the fire protection regulations in our company.

Alertness for emergencies is an integral part of the company's responsible management in relation to risks connected with high fire hazard operations. Our company is very particular about the professional qualification of the employees assigned to fire prevention patrols. Within the skill gaining part of the professional training led by instructors from the Unipetrol RPA Fire and Rescue Squad, the company's employees are raising functional skills and gaining experience related to the fire symptoms, managing the conduct in critical situations, and foreseeing potential hazards and the risk rate.

EMERGENCY ALERTNESS

The prevention of serious emergencies is an integral part of the Česká rafinérská integrated management system. In 2012, no emergency subject to reporting pursuant to Act No. 59/2006 Coll., on the prevention of major accidents caused by hazardous chemicals or chemical preparations, occurred.



The second-degree emergency staff has been summoned in just **one single case** when a minor leakage of oil products from the storage tank in the Litvínov refinery (Jiřetín tank farm) occurred. A fault of this storage tank bottom was the reason for the leakage with no risk to the environment. Once this extraordinary event was fully investigated, measures needed to prevent a similar emergency from occurring or recurring were adopted.

In the last year, many various emergency situations were also practised. **41 emergency practice exercises** were accomplished; one of them was the second-level emergency exercise, including the emergency staff summoning. In 2012, a fire on the petrol storage tank roof at the Jiřetín tank farm was the theme of this exercise. The extinguishing water was taken by means of mobile pumps through the distance hose line from the Jiřetín lake approx 950 m away. During this exercise, the performance of the mobile extinguishing devices was checked in terms of providing extinguishing agent in sufficient capacity at the fire location. In cooperation with the Police of the Czech Republic, the traffic had to be stopped and the road near the tank farm closed for the necessary time.





In connection with impacts of serious industrial emergencies, the global attention paid to process safety management is getting more intense. Process safety management applies principles of management and systems for identifying, understanding, and managing process risks and their prevention. Setting forth the resources (systems, processes, programmes) eliminates occurrence of unwanted extraordinary events related to the process safety, such as substance and energy leakage, equipment breakdowns, overpressure, corrosion, material fatigue, faults in management systems and others, or reduces their negative impacts. Process safety resources focus, for example, on equipment design and projects, risk assessment, change management, inspection, equipment testing and maintenance, efficient alarm systems, effective production management and control, safe procedures, human factor reliability, and operating and managing employees training.

The Česká rafinérská process management system set-up is a continual process that started at the very beginning of the company's existence and has been underway since then as one of the key elements in managing and decision-making steps of the company.

- **Since 2008**, the selected process safety reactive and proactive key indicators have been monitored and consulted in compliance with our shareholders' requirements.
- **Starting 1 January 2012**, the LOPC (Loss of Primary Containment) reactive indicator identification and recording methodology has been introduced.
- Within the performance evaluation in the process safety sphere, process safety cases were identified and reported in compliance with the ANSI/API RP 754 recommended practice. **Since 2011**, Česká rafinérská, in compliance with this recommended practice, identifies, records, and reports the process safety events (PSE) of the first and second level identified, in terms of the given definitions, as unplanned or unmanaged loss (LOPC) of any substance from the process primary containment with defined criteria of limits and consequences.

- **For 2012**, the company keeps records on **5 first-level events**. In two cases, the particular LOPCs have not implied any additional safety negative impacts; another two cases have dealt with LOPCs with subsequent fire rise, and one case with the LOPC causing an occupation accident. For this year, **4 second-level events** have been recorded; in all cases, the defined volume of the given substance has been exceeded with no other safety negative impacts.
- Also, the frequency of these events was kept track of (according to the above-mentioned recommended practice and the CONCAWE European organisation rules) as the ratio of the PSE number to the total hours worked by employees and contractors in the given year (analogous to the TRIR accidents frequency).
- **In 2012**, the process safety critical activities inspection system has been introduced.

Within the framework of the company's approved activities, the attention was focused on single elements of the safety management (and the equipment integrity) in the last year; these elements are the key prerequisite for safe and effective operation and needed for minimising the number of the losses of primary containment (LOPC), or the number of the process safety events (PSE) and their negative impacts. That's why the activities like identifying the critical devices in terms of the HSE, revising operational risks; supporting investments, updating the operation documentation, revising the reporting system, keeping records on and investigation reasons of emergencies occurrence, continuing in making the maintenance process more effective via the risk evaluation methodologies, checking the process safety critical activities, auditing critical processes, implementing measures resulting from audits, inspections, and investigation reports, and enhancing professional knowledge, skills, and key competencies, will continue even in the period to come.

During the year 2012, the company continued (in accordance with the undertakings specified in the Policy of Integrated Management of Česká rafinérská) its efforts to minimise negative impacts on environment by its business operations. The undertaking is focused in particular on compliance with legislation and voluntary commitments in the field of environmental protection, but also on the method of operating refinery technologies and equipment, quality of manufactured products, training and motivation and increasing awareness of employees and contractors in regards to environmental protection.

AIR PROTECTION

The protection of the air against pollutants is provided by proper operating air pollution sources and devices limiting emissions of pollutants, such as

incinerators in sulphur production facilities, recuperation units to trap and recuperate hydrocarbon gases and vapours, floating roofs with double tank insulation, vapour exhaust systems for filling devices, etc.

The tabular overview shows the increase in the sulphur dioxide and carbon monoxide emissions in the Litvínov refinery caused by the repair of the sulphur production technology equipment. The nitrogen oxides emissions reduction was caused by a lower volume of the ammonia-content gas burned at the flare. The amount of air-polluting emissions in the Kralupy refinery did not change significantly. The carbon dioxide emissions in the table below are calculated using methodology of the European trade with the EU ETS greenhouse gas emission allowances.

Total emissions to air in the Litvínov refinery:

Year	SO ₂	NO _x	CO	TL	VOC	H ₂ S	CO ₂
	(t/year)						
2008	3,781.7	410.4	263.7	5.0	61.1	0.503	426,318
2009	5,975.1	1,102.9	165.2	4.2	51.6	0.574	401,383
2010	2,920.8	447.7	146.1	3.6	56.2	0.512	409,891
2011	5,766.6	769.4	164.2	3.5	54.2	0.585	374,148
2012	6,113.2	525.6	251.2	3.0	56.4	0.447	392,690

Total emissions to air in the Kralupy refinery:

Year	SO ₂	NO _x	CO	TL	VOC	H ₂ S	CO ₂
	(t/year)						
2008	1,384.4	156.6	170.8	13.7	64.6	0.000	483,991
2009	1,145.4	155.7	103.3	14.0	59.4	0.012	404,882
2010	1,313.2	164.7	83.7	10.2	61.1	0.039	473,414
2011	1,453.6	136.5	74.2	8.9	63.9	0.023	466,156
2012	1,367.9	139.1	54.5	16.5	64.9	0.026	463,962

SS = solid substances, VOC = hydrocarbons

HYDROCARBON EMISSIONS (VOC):

	Kralupy (t/year)				Litvínov (t/year)			
	Tanks	Incineration	Other	Total	Tanks	Incineration	Other	Total
2008	48.9	1.6	14.1	64.6	47.4	4.6	9.1	61.1
2009	45.0	2.5	11.9	59.4	43.5	4.5	3.6	51.6
2010	44.8	2.7	13.6	61.1	46.3	4.6	5.3	56.2
2011	47.5	2.5	13.9	63.9	44.6	4.6	5.0	54.2
2012	48.3	2.2	14.4	64.9	44.2	4.2	8.0	56.4

The table shows emissions of hydrocarbon gasses and vapours into the atmosphere grouped into emissions caused by incineration (furnaces and emergency gas flares), tanks and other sources over the past five years.

Unlike the previous year, no significant changes in the volume of emitted hydrocarbon gases or vapours occurred in either of the refineries operated by the company. The volume of emissions from individual types of sources virtually does not change; it depends on the transport method of individual products or, as the case may be, the share of their transport by pipelines, the quantity of processed materials, logistic conditions and utilization of storage capacities.

FUGITIVE EMISSIONS FROM DISPERSED SOURCES – LDAR METHOD

For a long time, the LDAR program has been used as a tool for detecting leaking devices and reducing losses of volatile hydrocarbons. A systematic search for leaks of operational media from the so-called “dispersed sources” (a general term for leaking components of production, storage and manipulation equipment in refineries) and their immediate repair during the operation has an almost twenty-year-long tradition in the company. It had been applied in the Litvínov refinery even before establishment of Česká rafinářská and in the Kralupy refinery several years later. Detection of fugitive emissions by direct measurement in both company’s refineries from the so-called “dispersed resources” continued in the year 2012 too. In the **Kralupy refinery**, the production complexes of blending and petrol storage, the road terminal and railway tanks filling, liquid gases and MTBE storehouses, MTB production facility, and selected equipment in the refining block have been thoroughly measured. More than **34 thousand various components** were measured, more than **500 leaks** detected, primarily from the fittings and flange joints padding, and more than half of them rectified during the operation, thus, the emissions were reduced by **218 tons per year**. In the **Litvínov refinery**, almost **42 thousand components** were measured in the new refinery facilities, with continual reforming, gas desulphurisation, the Jiřetín storage facilities and

railway and road tanks filling terminals, and almost **309 leaks** were detected of which **100** were rectified during the operation, thus, the emission reduction by **115 tons per year** was achieved. Leaks that could not be removed during measurements for technical reasons are scheduled for rectification at the earliest possible convenience.

The trend of leak quantity after rectification is monitored by comparing the percentage of leaking components per one thousand measured components; the results of both refineries over the past five years are given in the following tables, including emissions from dispersed sources in the current year.

Litvínov refinery:

per 1000 components	2008	2009	2010	2011	2012
proportional representation of leaks (%)	0.58	0.52	0.43	0.35	0.49
reduction of emissions from dispersed sources (t/year)	173	16	153	218	115

Kralupy refinery:

per 1000 components	2008	2009	2010	2011	2012
proportional representation of leaks (%)	0.83	0.57	0.61	0.76	0.83
reduction of emissions from dispersed sources (t/year)	42	217	121	129	218

SURFACE AND UNDERGROUND WATERS

In the **Kralupy refinery**, the underground water quality protection enhancement, or the reduction of the underground water quality deterioration risk, focused on the equipment containing MTBE. Once a selected section of the sewage system that treats products containing MTBE was reconstructed, the reconstruction project for the remaining sewage system section was commenced. In the **Litvínov refinery**, the implementation of measures to reduce the underground water quality deterioration was continuing. Within these measures, the waste water sewages are being repaired and replaced; the original earthen pipes are being replaced with fibre-glass tubes. In 2012, the second phase of the sewage renovation project for the crude oil atmospheric and vacuum distillation block was accomplished. Thereby, the areas with previously performed sewage system replacements in the road terminal, car petrol storage tank and tank delivery site were expanded.

The protection of underground water on the **Kralupy premises** is primarily provided by the underground water hydro-geological protection (**HOPV**) **hydraulic barrier**. The operation of the northern, the so-called “HOPV refinery branch” is contractually provided by a specialised company guaranteeing the optimum adjustment and adherence to the technical and technological parameters of the system. Last



year, the activities also focused on the enhancement of the remediation and monitoring system reliability through the completion of the hydraulic barrier reliability enhancement project. The frequency and extent of monitoring the pollutants in underground water were optimised. Laboratories successfully completed the accreditation for stipulating selected parameters of underground waters.

The project of **expanding and supplementing the HOPV** system with additional active elements, including horizontal drill holes and drains, was included in the investment projects significant from the viewpoint of reducing the risk of underground water quality deterioration and achieving the parameters of the best available techniques in waste water treatment. The waste water treatment plant reconstruction project continued with the preparation of project documentation and the contractor selection. The preparation of the development of the treatment equipment designed for purifying a portion of the underground water focused on removing MTBE.

The waste water production in both refineries and its volume related to one thousand tons of processed crude oil:

Year	Kralupy		Litvínov	
	Waste waters (10 ³ m ³ /year)	Specifically to oil (m ³ /1 kt oil)	Waste waters (10 ³ m ³ /year)	Specifically to oil (m ³ /1 kt oil)
2008	697.3	252.7	1937.5	396.1
2009	746.5	329.0	1657.3	363.3
2010	769.9	285.8	1750.6	374.2
2011	599.0	226.1	1729.4	421.3
2012	525.2	203.1	1627.4	356.2

The increased nominal production of waste waters in the **Litvínov refinery in 2011** is directly connected with the fact the evaluated year was a turnaround period for this refinery. During the turnaround, cleaning and other operations resulted in consumption of clear water and production of waste water even at the time when the technological equipment of the refinery was out of operation. The total amount of waste water is also affected by the precipitation amount

Litvínov refinery overall waste volume:

Year	Production			Investment			Refinery		
	Total	N	O	Total	N	O	Total	N	O
2008	1,113	552	561	1,215	474	741.0	2,328	1,026	1,302
2009	1,210	719	491	255	0	255	1,465	719	746
2010	612	187	425	11	0	11	623	187	436
2011	1,917	1,371	546	306	0	306	2,223	1,371	852
2012	1,378	831	547	316	0	316	1,694	831	863

D = dangerous, O = others

Kralupy refinery overall waste volume:

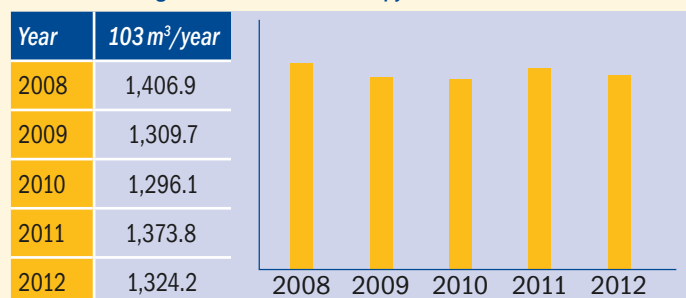
Year	Production			Investment			Refinery		
	Total	N	O	Total	N	O	Total	N	O
2008	1,583	960	623	1	0	1	1,584	960	624
2009	1,680	944	736	178	0	178	1,858	944	914
2010	1,803	466	1,337	677	425	252	2,480	891	1,589
2011	1,890	565	1,325	0	0	0	1,890	565	1,325
2012	2,077	703	1,374	40	0	40	2,117	703	1,414

D = dangerous, O = others

especially in the Kralupy refinery where all the water, including rainwater, is drained into the water treatment plant.

The table with underground water volumes specifies development of pumping underground water from wells of hydro-geological protection in the Kralupy industrial complex. Pumping of underground waters is optimized by the hydraulic barrier operator in agreement with development of the basic parameters of the system, e.g. the volume and direction of the underground water current, level heights, etc.

Volume of underground waters from Kralupy HOPV:



In both refineries, tightness tests are in progress, particularly in sumps and waste water lines, as well as other equipment, where dangerous substances are handled. Inspections of the storage tanks and repairs of the waste water sewage system are performed according to an approved timetable.

WASTES

The waste management system is based on basic requirements on the waste generation prevention and reduction, and on their sorting, as well as material and energy exploitation. The share of waste resulting from investments is proportional to the scope of investment activities in the respective period, earthmoving works in particular. The total volume of wastes and shares of wastes grouped into other wastes, dangerous wastes and recyclable wastes is considerably influenced by shutdown activities and activities performed according to long-term plans, for example shutdown and cleaning of storage tanks, etc.

Company overall investment and production waste volume:

Year	Total wastes	Investment wastes		Production wastes	
		Total	Dangerous	Total	Dangerous
2008	3,911	1,215	474	2,696	1,512
2009	3,323	433	0	2,890	1,663
2010	3,103	688	425	2,415	653
2011	4,113	306	0	3,807	1,936
2012	3,811	356	0	3,455	1,534

Production recycled and dangerous wastes:

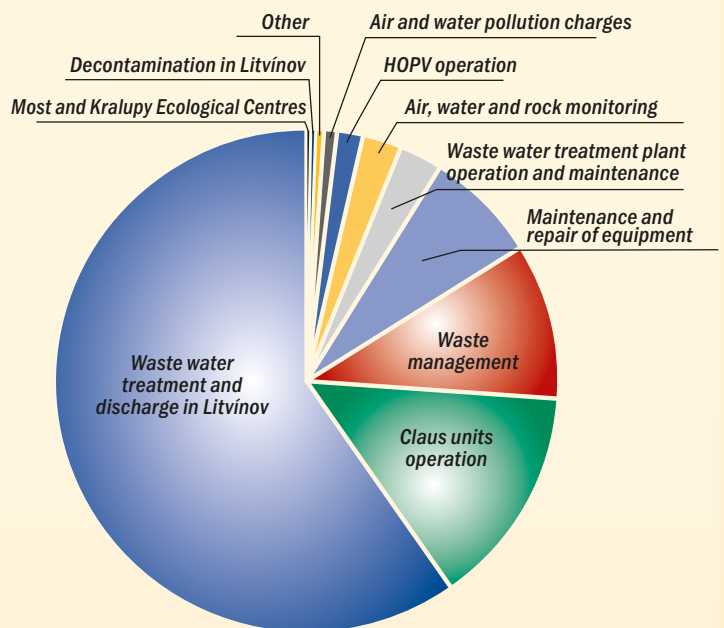
Year	Litvínov		Kralupy	
	Recycled (%)	Dangerous (%)	Recycled (%)	Dangerous (%)
2008	42.0	49.6	83.8	60.6
2009	60.7	59.4	89.5	56.2
2010	76.2	30.5	96.1	25.8
2011	46.6	71.5	97.0	29.9
2012	51.9	60.3	90.1	33.8

ENVIRONMENT PROTECTION OPERATING COSTS

The environment protection operating costs are specified in the items used by default in reports on the company impact on the environment. The treatment and discharge of waste waters in the Litvínov refinery represents the highest cost item constituting almost 60% of the total operating costs spent for environmental protection in the entire company. Costs of processing the acid hydrogen sulphide gases by the Claus process and the costs of waste disposal are also important items. The costs of air, water and ground environment pollution monitoring include the costs for detecting gas and hydrocarbon vapour leakage from dispersed sources, authorised measurements of pollutant emissions discharged into the air and surface waters, waste water sampling and analysing, the emission monitoring station operation, etc. In 2012, an administrative action has been commenced against the company for violating the Water Act owing to the leak of a hazardous substance into the recipient water.

Environment protection operating costs in CZK thousand:

Claus units operation	29,138.1
Waste water treatment plant operation and maintenance	5,831.1
Waste water treatment and discharge in Litvínov	124,229.3
HOPV operation	3,354.2
Decontamination in Litvínov	800.9
Air, water and rock monitoring	5,234.6
Air and water pollution charges	2,035.3
Waste management	20,858.9
Most and Kralupy Ecological Centres	600.0
Maintenance and repair of equipment	15,039.9
Other	1,055.8
Total	208,178.1



INVESTMENT

In 2012, projects were completed or project preparation commenced primarily in the water and atmosphere protection sphere, emissions monitoring, and energy exploitation efficiency enhancement.

In the **Kralupy refinery**, preparation and completion of projects leading to reducing the risk of underground water quality deterioration and achieving the parameters of the best available techniques in waste water treatment continued. This group of projects includes **extension and supplementation of the hydraulic barrier system, treatment of a portion of the pumped underground waters, increased reliability of the hydraulic barrier, revamp of the waste water treatment plant, reconstruction of the sewage system and modernisation of the rail filling platform**. The hydraulic barrier was extended with further decontamination elements in the zone between the refinery and Veltrusy community ensuring a more efficient operation, and part of the technical equipment was modified to increase reliability of the system. The equipment for treating pumped underground water will pre-treat some of the underground water pumped by the hydraulic barrier system. Preliminary works, including the site layout and utilities attachment, were completed; the respective equipment will be installed **during 2013**. The reconstruction of a selected section of the sewage system was completed, and the preliminary phase of the project for repairing the remaining part of the system commenced, to continue over the next several years. The completion is planned **for 2015**. The waste water treatment plant revamp project will ensure the observance of the limits legislature required for the treatment plant outputs in accordance with parameters of the best available technologies. In **2012**, the bid process for the development phase was completed. The project will be carried out in several phases and fully completed in **2015**. The rail filling platform modernisation brought a significant improvement to the work environment and the technical level of the filler facility, thus reducing leaks of gaseous and liquid hydrocarbon substances.

The second phase of the sewage system reconstruction in the crude oil atmospheric and vacuum distillation block was accomplished in the **Litvínov refinery**, and the Jiřetín tank farm and the road terminal remediation systems optimising project was commenced.

The project of the continual emissions measurement at the outputs from the Claus unit in the Kralupy refinery was readied; its implementation is planned



as part of the refinery 2013 shutdown. In the **Kralupy refinery**, the project for modifying burners in the atmospheric distillation ovens was accomplished.

Environment protection investment cost overall amount:

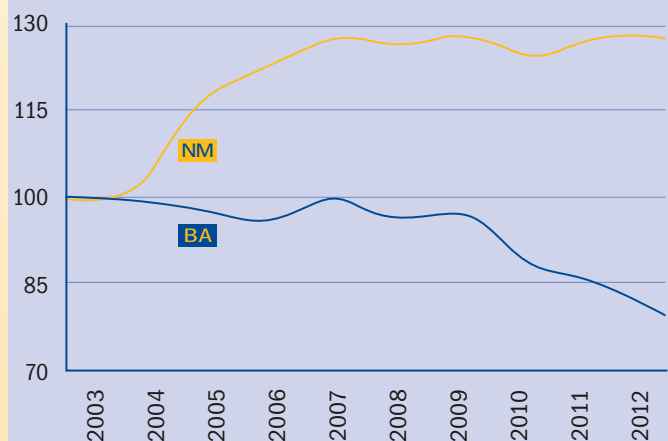
Investment project	thousand CZK
Railway filling platform modernisation	62,383.1
Reconstruction of oil -contaminated sewer blocks 41, 26, 17	4,667.3
Reconstruction of oiled up sewerage system in Kralupy	2,800.4
HOPV extension – MTBE remediation in underground water	19,834.2
Waste treatment plant revamp	362.6
Increase of HOPV reliability	3,087.0
Continuous emission monitoring in Claus Kralupy	3,600.0
Underground water treatment	272.4
NRL flare system modification	18,404.1
Atmospheric distillation burner modification	1,220.0
Litvínov Claus units operation reliability enhancement	4,495.6
Other environment protection projects	5,950.5
Total	127,077.2

QUALITY OF PRODUCTS

The permanent care for quality of products supplied to the market is one of Česká rafinérská's major priorities. The company's products quality is steadfastly maintained at the level comparable to, and in some parameters even higher than, that of foreign producers' and suppliers' products. In terms of the production volume, as well as potential impacts on the environment, motor fuels represent the most significant production group. The content of sulphur in all produced motor fuels satisfied requirements for sulphur-free fuels, i.e. fuels containing less than 10 mg/kg of sulphur.

The legal obligation to replace part of the fossil motor fuels with bio-fuels was accomplished within the bio-fuel implementation project. The **4.17% V/V** bio-ethanol proportion was achieved in motor vehicle petrol fuels, and the **6.05% V/V** FAME bio-ethanol proportion was achieved in Diesel fuel. Simultaneously, the company accomplished the preparation for adhering to the new obligation in terms of Act No. **201/2012 Coll.**, on the protection of the air; this obligation deals with the reduction of greenhouse gases emitted from fuels related to the unit of energy contained in the fuel within its complete life cycle. A system was established for keeping records and reporting the emission reduction so that the company may corroborate the emission reduction **for 2013** to the respective government bodies in compliance with the current legislature.

Development of Motor Fuels Consumption on Domestic Market





In relation to the requirement of our customers, Česká rafinérská decided in 2007 to implement the system and accreditation of laboratories according to the ČSN EN ISO 17025 standard.

In 2008, an accreditation audit by ČIA was performed during which the methods for analysis of heating gases composition and heating value of the heavy heating oil have been accredited. Such an accreditation is required by the Regulation No. 696/2004 Coll. to set out the procedure of identifying, reporting and verifying the volume of greenhouse gases. We have obtained the accreditation from ČIA in 2008. During inspection visits in 2009 to 2011, we have extended the scope of accreditation with additional methods in the field of analyses of oil, waste water and fuels that might be subject to complaint.

In 2012, laboratories have extended the scope of accreditation with another method, namely the MTBE, ETBE and BTEX content assessment in waters, as required by the shareholders' safety audit. This method has broadened the number of methods for assessing the environment protection parameters. The method is used for assessing contamination of underground waters with ethers and hydrocarbons.

In the course of 2012, laboratories were readying another method for accreditation - Diesel fuel Cloud point assessment in laboratories of both locations.

New methods

During the 2012 winter season, we tested two new methods used for adjustment of suitable dosing of a depressant for low-temperature features of Diesel fuel, namely the Aral test and Assessment of paraffins in Diesel fuel and gas oil.

Correlation schemes in laboratories

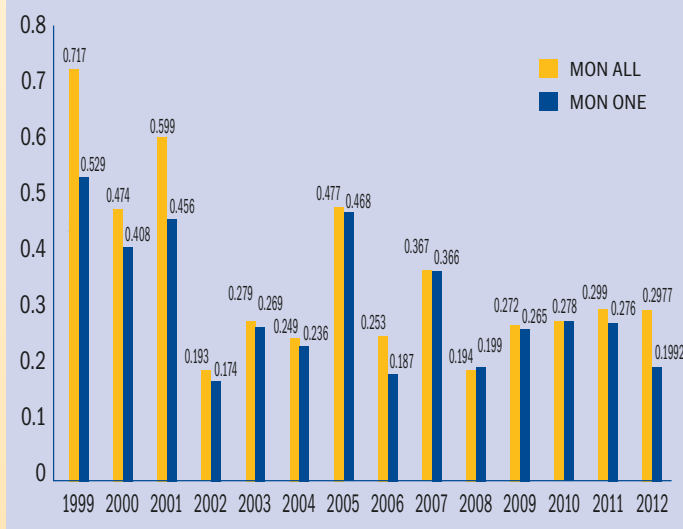
During 2012, we took part in several types of correlation scheme. We are traditionally included in correlation scheme of fuels organised by IIS (Institute for Interlaboratory Studies, a Dutch institute); in correlation

scheme of waste water by ASLAB, CSLAB, and Aquacheck; in correlation scheme of asphalts; in correlation scheme for octane and cetane indexes. In 2012, we performed the correlation scheme in both of the company's locations with the success rate of 98%.

Investments in laboratory instruments

In 2012, we invested CZK 12 million in laboratory equipment, particularly in new laboratory apparatuses. We have purchased up-to-date instruments for analysing fuel parameters, such as assessing filterability in oil, viscosity analysers, an instrument for assessing the composition of hydrocarbon groups of various kinds of petrol, instruments for assessing the sulphur content in fuels, a chromatograph for assessing the propylene composition, and others.

Octane index measurement standard deviation development from 1999 to 2012



INTERNAL AUDIT AND RISK MANAGEMENT

The internal audit and risk assessment are significant activities of the company. Even in 2012, close links among employees, the company management, audit committee, the Board of Directors, the Supervisory Board, processors, and shareholder were maintained.

The audit committee and the shareholders' audit and finance committee continued their activities in 2012. The audit committee members are the company Board representatives. The shareholders' audit and finance committee members are representatives all the company's shareholders.

Audit committee and shareholders' audit and finance committee meetings schedule:

Shareholders' audit and finance committee meeting	Audit committee meeting
22 February 2012	14 February 2012 27 March 2012
20 May 2012	17 April 2012 15 May 2012
6 September 2012	5 June 2012 21 August 2012
7 November 2012	30 October 2012

The new "Internal Audit Regulation" document has been adopted and issued in virtue of the Board decision. This decision defines the purpose, powers, and responsibilities of the internal audit within the company.

The Board's "Audit Committee Regulation" decision has been revised and updated. This decision defines the membership and scope of the audit committee.

INTERNAL AUDITS

Internal audits are focused on checking whether activities are accomplished in compliance with the company's goals and established regulations. Audits also include checking the implementation of corrective measures set down by previous audits, and checking the register of risks in individual process,

including the assessment of the effectiveness of stipulated checks and corrective measures adopted in the past. The company's internal audits plan includes the audit of primary and supporting processes, and is set up with respect to the annual priorities based on the regular risk assessments.

Since 2008, the internal audits are carried out under the guidance of the business support section in cooperation with trained internal auditors from other departments.

In 2012, a total of 6 internal audits were accomplished in the company.

Internal audits accomplished in 2012:

Date	Audited process
March	"Logistics and dispatch" process
April	"Long-term planning" and "Annual planning" process
October	"Inspection body proceeding-Type B" process
November	"Accredited laboratories" process
December	"Energy management" process
December	"Processes performance evaluation" process

In November, a workshop has been held for internal auditors primarily aimed at the „Internal audit related risks“.

EXTERNAL AUDITS

External audits accomplished in 2012:

Date	Auditor	Audited field
January 2012	Český institut pro akreditaci, o.p.s. (Czech Accreditation Institute)	Type B inspection body accreditation-Verification acc. to ČSN EN ISO IEC 17020:2005
February 2012	Český institut pro akreditaci, o.p.s. (Czech Accreditation Institute)	Laboratory accreditation-Verification acc. to ČSN EN ISO IEC 17025:2005
March 2012	Representatives of processors	JET A1 Product manufacturing and quality

Date	Auditor	Audited field
May 2012	Representatives of processors	Checking the adherence to safety regulations in drawing and filling the railway tanks.
June 2012	Lloyd's Register Quality Assurance	Inspection visit to check the adherence to the requirements of ISO 9001:2008, ISO 14001:2004, ČSN OHSAS 18001:2007
August 2012	Representatives of processors	Checking the adherence to safety regulations on road terminals
October 2012	Marsh (hlavní pojišťovací makléř)	Safety inspection by insurance companies
October/November 2012	Zástupci procesorů	Monthly closing balance
November 2012	Representatives of processors	Audit for costs spent on external services and energy and supporting media purchase
December 2012	Representatives of processors	The process of accepting bio-components in the Kralupy and Litvínov terminals and the related operations

RISK MANAGEMENT

Any business of any company has its own risks. Česká rafinérská ranks among those companies that realise very well these risks and try to eliminate and manage them within their business operations. That's why new risks are periodically identified, and the existing ones updated and assessed. In addition to the company business operation risks, we also deal with other risk categories: the occupational safety and health protection risks, as well as with risks to/impacts on the environment.

The risk management in the company went through significant a change process in 2012. The register of business risks was reworked completely, a number of new risks identified, and, within their assessment, we also dealt with the level of inspections and the chances of their intensification. The update of operational risks, their impacts, and the severity of the identified risks, including the identification of control barriers, were continued.

In addition to ongoing updates, the map of the company's business risks is reviewed in general in annual cycles. The lasting concern of the company management and shareholders in this sphere is a definite plus.

The road and railway transportation of hazardous items represents a special risk management sphere. As the majority of the Česká rafinérská products falls into this category, the company shares the adherence to all the statutory obligations related to this kind of transportation. In this way, the company acts, under the ADR/RID international agreements on the road and railway transportation of hazardous items, as an active part of their logistics chain.



IRREGULAR AUDITS

In addition to internal and external audits accomplished in 2012, also several irregular audits, examinations or projects were completed. These were carried out on the company management's request and/or the audit committee.

SUPPLIERS' AND MANUFACTURERS' AUDITS

As part of the contractor selection process and based on the plan of audits, also the audits of contractors and manufacturers were completed in 2012; these were focused on the occupational safety and health protection, quality, and the environment protection spheres.

CODE OF ETHICS

Ethical business operation and conduct is a long-term priority of Česká rafinérská supported by the continuing efforts to enhance the general awareness of ethical business principles and procedures within the company. Consequentially, this has materialised in the introduction of the training on ethics for all new hires, and previously for the staff in risky positions, last year. The related internal policies and procedures reflect the concern and intention of the company to develop the highest ethical standards in all its employees, as well as in all employees of its contractors.

The company's Code of Ethics summarises the ethical standards and philosophy of the company for all the participating parties in terms of gifts, advantages, payments provided or accepted by the company, potential conflicts of interest, and other sensitive matters of the everyday work activities. The established system of annual inspections of adherence to the internal ethical rules for all employees provides feedback on the state and level of the ethical conduct awareness for both the company management and everybody's self-reflection. The insistence of the company management and the representatives of owners aimed at adhering to the ethical conduct within the entire company is very clear.

PROPERTY PROTECTION



One of the company's commitments defined in the Integrated Management System Policy is to make sure its employees and contractual partners are jointly involved in protecting the property, data, information and equipment against any risks of theft, loss or damage due to a criminal or malevolent act. Therefore, the top concern in our work is to enforce the prevention against losses through the correct set-up of the protection mode and technical aspects that are under the continuous improvement process. Along with that, our aim is to improve employees' awareness in the property protection field.

INDUSTRIAL ZONES, BUILDINGS, AND TECHNICAL EQUIPMENT PROTECTION

In 2012, the physical security of the Litvínov and Kralupy refinery operations was contractually provided by the industrial zones administrators (UNIPETROL RPA, s.r.o. v Litvínov and SYNTHOS, a.s. v Kralupy) through security agencies. For refineries, this particularly includes the guard duty, adherence to the passage surveillance regimen, company's material passage through the industrial zones' gateways and others.

The technical security of buildings and technology facilities in the Litvínov and Kralupy refineries is permanently supported by a camera security surveillance system making use of up to 25 cameras.

PRODUCT PROTECTION

Protection of products is secured in both refineries by combination of elements of physical and technical control.

In the Kralupy refinery, a camera surveillance system is used with cameras surveying the spots that are risky regarding possible thefts of oil products, and in the road terminal the cameras are monitoring the road tanker filling process. Since 2010, the liquefied gases storage has been secured through an up-to-date, perimeter-oriented detection system combined with cameras. Thus, the industrial zone perimeter protection has been significantly enhanced against any attempts to break into the storage areas.

In the Litvínov refinery tank farm zone and the Jiřetín terminal, 30 stationary cameras are in continuous operation to guard the stored fuels and oil and to keep fuel pumping into road tankers under surveillance. These security systems are under the permanent surveillance of a security agency at the guarding posts or at the centralized security desk.

Our efforts will be concentrated on enhancing the preventative and control activity by introduction of a new regimen and up-to-date technical and electronic facilities for protection of the company's property also in the period to come. We will in particular focus on the spheres identified by safety risk analysis.

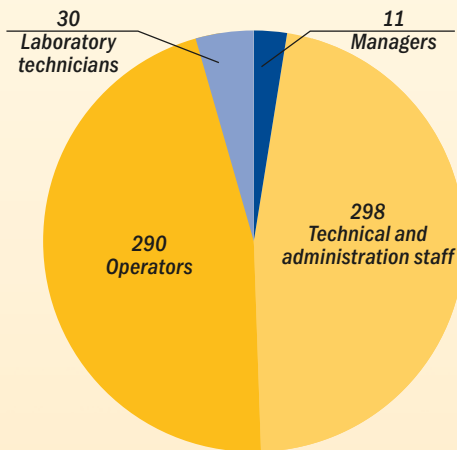




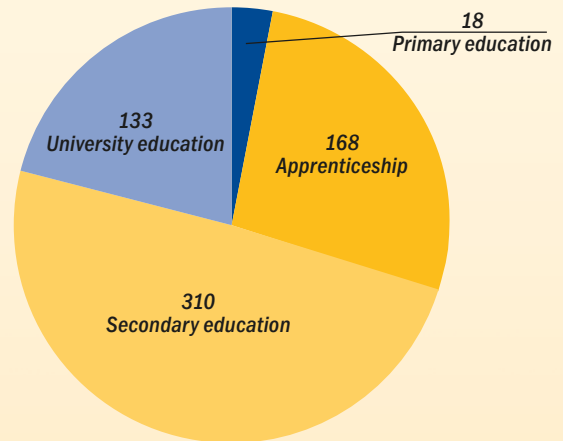
Česká rafinérská is a major employer in two regions, and was such also in 2012. The company reviewed its processes and applied modern methods of human resources management. Care for employees is an inseparable part of the company's strategy and culture.

Competency matrices were drawn to represent the optimal combination of knowledge, skills, and „correct conduct“ for mastering the given work activities. The competency matrices will be used as the base for training plans, the substitutability, the long-term development of competencies, and employee performance measurements.

**Position related employee grouping
as of 31 December 2012**



**Education level related
employee grouping**



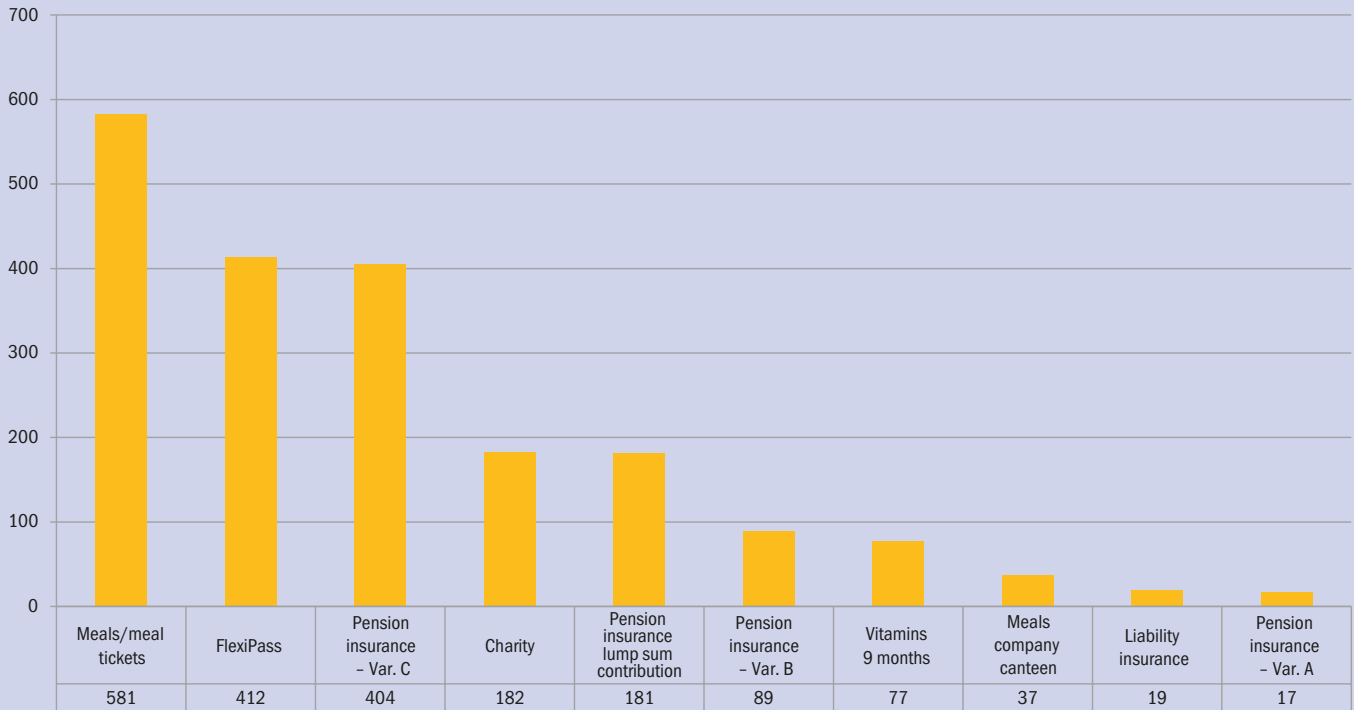
TRAINING

The company realises that educated employees are its key power, which enhances its success and competitiveness. Therefore the company concentrates consistently on developing work skills and training employees. Training employees is realised pursuant to the company's training plans and cross-sectional development projects. In 2012, the company focused on the most effective spending on training. Regarding the operator training, learning lessons from various situations occurring during the production process in both our company and the companies of our shareholders, as well as personal exchange of experience and best practices, are accentuated. In 2012, the company organised 146 individual training sessions, covering 5,580 hours of training.

HEALTH PROMOTION PROGRAMME

Health care and promotion has been a priority of Česká rafinérská from its very establishment. Our care for human resources includes preventive medical examinations of employees, inspections of worksites in regards of protection, sickness rate monitoring, theoretical and practical first aid training, and other activities relating to health protection in production and non-production departments of the company. Also the health care forms guaranteed by the collective agreement must not be forgotten. Providing a vitamin preparation during the three winter months is also worth mentioning.

UTILIZATION OF INDIVIDUAL BENEFITS FROM THE "PALETA" SYSTEM



NON-MONETARY EMPLOYEE BENEFITS

The "Paleta" system of optional benefits has been used by the employees of Česká rafinérská for 13 years. The employee benefits help balance the work and personal lives of employees and enhance their satisfaction and motivation and are, therefore, considered an effective instrument for human resources management. This system allows choosing from a wide selection of employee benefits according to individual needs and preferences, and extends the offer of leisure activities and health support elements. In 2012, meal allowances, FlexiPass vouchers, and pension insurance contributions belonged among the most often selected benefits. Compared to the previous year, there was no significant change in the offer of individual benefits and the frequency of their use. Almost two hundred employees have also taken advantage of assistance provided by the "Paleta" system to the needy and chosen the charity allowance for one of the pre-selected non-profit organisations as one of the benefits.



COOPERATION WITH COMMUNITIES

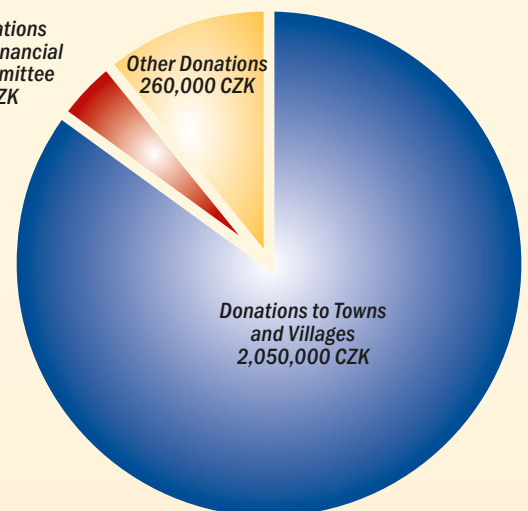


Česká rafinérská has been paying attention to the principles of social responsibility from its very establishment. Using the know-how of its foreign owners, the company has introduced modern employment standards and above-average care to its employees, and puts great emphasis on health protection, occupational safety and environmental protection, with regard to both the money invested and the coherence of individual system measures. The company has established a system of cooperation with neighbouring municipalities and communities, a system of providing financial donations according to priorities adopted; the company applies open communication with the public and mass media, and is responsive to the needs of neighbouring entities. A balanced relationship with municipalities in the surrounding area, cooperation and help in fulfilling the goals of local administrative authorities and perception of the needs of other entities in the region form the basis of Česká rafinérská's external activity in the long term. The intensive cooperation with the municipalities and communities in the vicinity of both refineries continued in 2012 in both the information provision and financial support spheres. The company also supported various non-profit organisations and needy fellow citizens with financial donations and, for example, through volunteering or donating computer equipment.

FINANCIAL DONATIONS

The company provides financial donations to municipalities and communities in virtue of annual schedules to long-term agreements on cooperation. Within these schedules, the company donated CZK 2,050,000 primarily designed for supporting actions and activities organised by the respective municipal and communal authorities or by subjects acting in the given town or commune—these include Litvínov, Most, Meziboří, Kralupy nad Vltavou, Veltrusy and Chvatěruby. Based on long-term cooperation, the company provided CZK 260,000 to five subjects as follows: Veltrusy Primary School; Veltrusy Nursery School; Alergia, o.p.s. in Kralupy nad Vltavou, Nadace Solidarity (Solidarity Foundation) and Výzkumný ústav pro hnědé uhlí (Brown Coal Research Institute), the founder of Ekologické centrum Most (Most Ecology Centre).

Financial Donations
Distributed by Financial
Donations Committee
100,000 CZK



The company further supported non-profit organisations or needy individuals that addressed the company with their needs. Based on the assessment of their pleas the company received, the Financial Donations Committee selected four applicants and distributed CZK 100,000 among them as follows:

- Svaz neslyšících a nedoslýchavých v ČR, ZO nedoslýchavých Most (Czech Republic Union of Deaf and Hard of Hearing, Most Branch Office) - contribution to operation of the the centre associating citizens with hearing difficulties;
- Nadace Křižovatka, Brno (Brno Crossroads Foundation) - contribution to the Most Hospital Pediatric Ward for purchasing BABYSENSE II monitors for checking the breath and movements of newborn babies directly in their cots;
- AMA, společnost onkologických pacientek, Most (AMA, Association of Oncology Patients in Most) - contribution to the operation and activities of AMA, which associates and supports the specific group of oncology patients in the Most region;
- Tereza Kloboučková, Kralupy nad Vltavou - contribution to the last payment for the price of the speech processor for a secondary school grade 3 deaf student for whom the processor is an indispensable aid.

MATERIAL DONATIONS

Help and assistance by providing material or services consisted **even in 2012** in rendering no longer used but still operable computer equipment to organisations with relatively lower demands on the performance of such devices. Overall, **62 sets** of computers and accessories were rendered to **9 organisations**, among them, for instance, Arcidiecézní charita Praha – Dům na půl cesty Kralupy nad Vltavou (Prague Archdiocese charity - Halfway house Kralupy nad Vltavou), **SK HC Baník Most**, or **Základní škola a mateřská škola Janov** (Primary school and Nursery school in Janov). Various promotional items and material donations were rendered to support events organised by various hobby and leisure organisations active in the region.



EMPLOYEES DONORSHIP

The charity activity in the company has already been a long-term tradition, and a significant number of employees use the opportunities the company offers to them. As already mentioned in the previous chapter, almost one third of employees waived their benefits available in the “Paleta” system in favour of a selected non-profit organisation. In 2012, thus, **CZK 24,900** has been divided among **Nadace Konto Bariéry** (Barrier Account Foundation), **Hospic v Mostě** (Hospice in Most) and **Dům na půli cesty** (Halfway house), and the **Asylum house for mothers with children in Kralupy nad Vltavou**. Several various events were organised during the year with the objective of involving the company’s employees in the charity. For instance, the **charity whist tournament or auction of pictures made by our employees** from photographs yielded **CZK 11,509** in total. Thanks to this money, we could support the **Sdružení SOS Dětských vesniček** (SOS Children’s villages association) and **Fond ohrožených dětí** (Fund for children in need).

VOLUNTEERING

Voluntary activities is popular among employees as a way of doing something for the neighbourhood and, simultaneously, to corroborate the sense of belonging to the company. Last year, Česká rafinérská held the sixth “Charity Days” event in which employees were offered the opportunity to exchange one working day for one day of work for a non-profit organization.

PROVIDING INFORMATION

Openness is the basis for communication among parties involved. The company is very particular about informing its neighbourhood promptly and proactively on doings in both refineries through the E-mail information system, E-mail or mail communication, press releases, or personal meetings. The Environmental Centre Most and Environmental Centre Kralupy nad Vltavou play a significant role in disseminating information in the neighbourhood.



Organisation	Location	Voluntary activities	Number of volunteers
Nadace pro Obnovu Krušnohoří (Ore Mountains Renaissance Foundation)	Lesná, Krušné hory (Lesna in the Ore Mountains)	Outdoor spring cleaning in the Ore Mountains by removal of fallen forest trees and branches, collecting wastes, raking leaves and dry grass and removing wind-fallen trees from hiking paths.	26
Halfway house	Kralupy nad Vltavou	Painting inner areas + post-paint cleaning, garden clearance	2
Veltrusy Chateau - Park	Chateau Park, Veltrusy	Collecting wastes in the park, cutting and uprooting the self-seeded bushes and stinging nettles, and other park maintenance activities.	23



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